



IN THE CLAIMS:

1. (Original) A bone plate assembly utilizing at least one bone screw for fixation of adjacent bones of a spine comprising:

a base plate including at least one aperture extending therethrough; and
screw retaining means mounted on and movable relative to said base plate between locked and unlocked positions about said aperture, said screw retaining means including a recess shaped to substantially encompass a head of the bone screw for preventing the bone screw from backing out from said base plate.

2. (Original) The bone plate assembly according to claim 1, wherein said base plate further includes a longitudinal axis defined by a first end and a second end and a length along said axis sufficient to span between the adjacent vertebrae, said base plate further including an upper and a lower surface, said lower surface being adapted to engage the bones.

3. (Original) The bone plate assembly according to claim 2, wherein said base plate is curved transverse to said longitudinal axis to conform the bone plate to the curvature of the vertebrae.

4. (Original) The bone plate assembly according to claim 1, wherein said at least one aperture is selected from the group consisting of a circular hole, a bore, a slot, and polygonal opening.

5. (Original) The bone plate assembly according to claim 3, wherein said bore includes at least one internal recess disposed in at least one of said upper and lower surfaces of said plate.

6. (Original) The bone plate assembly according to claim 3, wherein said at least one aperture disposed between said ends of said bone fixation plate is disposed along said longitudinal axis of said bone fixation plate.

7. (Original) The bone plate assembly according to claim 3, wherein said elongated slot is disposed at a substantially acute angle with respect to said longitudinal axis of the base plate.

8. (Original) The bone plate assembly according to claim 4, wherein said aperture includes an outer edge.

9. (Canceled).

10. (Original) The bone plate assembly according to claim 1, wherein said screw retaining means is further defined as an insert selected from the group consisting of a washer, ring, clip, and disk.

11. (Original) The bone plate assembly according to claim 10, wherein said insert includes a center axis and an opening eccentric to said center axis.

12. (Original) The bone plate assembly according to claim 11, wherein said insert is rotatable about said center axis between said locked and unlocked positions, wherein said opening of said insert is eccentric with said aperture of said base plate when in said locked position and said opening of said insert is concentric with said aperture of said base plate when in said unlocked position.

13. (Original) The bone plate assembly according to claim 10, wherein said insert includes a tab for engaging said at least one groove located on along said outer edge of said aperture of said base plate.

14. (Original) The bone plate assembly according to claim 13, wherein said tab engages said at least one groove to provide for said locked and unlocked positions.

15. (Original) The bone plate assembly according to claim 1, wherein said insert partially blocks a portion of the screw disposed in said aperture thereby defining said locked position.

16. (Original) The bone plate assembly according to claim 1, wherein said insert does not block a portion of the screw disposed in said aperture thereby defining said unlocked position.

17. (Original) The bone plate assembly according to claim 1, wherein said screw retaining means is flush with an outer surface of said base plate.

18-20. (Canceled).

21. (Original) The bone plate assembly according to claim 20, wherein said screw retaining mechanism is within said groove and said screw retaining

mechanism is a C-shaped washer that is collapsible to be inserted into said groove of said aperture.

22-49 (Canceled).

50. (Original) A bone plate assembly utilizing at least one bone screw for fixation of adjacent vertebrae of a spine comprising:

a base plate including at least one aperture extending therethrough, wherein said at least one aperture is an elongated slot having a hole extending therethrough and walls forming a spherical seat a distance along a length of said slot to allow the screw to enter through said hole; and

screw retaining means mounted and movable on said plate between locked and unlocked positions relative to said aperture, said screw retaining means including a recess shaped to substantially encompass a head of the bone screw for preventing the bone screw from backing out from said base plate.

51. (Original) The bone plate assembly according to claim 50, wherein said at least one aperture allows for the longitudinal movement of the screw along the distance of said slot while said screw retaining means is in said locked position.

52. (Original) The bone plate assembly according to claim 50, said recess is capable of substantially encompassing a cylindrical screw head.

53. (Original) The bone plate assembly according to claim 50, wherein said at least one aperture allows for the screw to translate without being able to rotate about a spherical head.

54-56 (Canceled).

57. (Previously Presented) The bone plate assembly according to claim 50, wherein said at least one aperture allows for the longitudinal movement of the screw along the distance of said slot while said screw retaining means is in said locked position.

58. (Canceled).

59. (Previously Presented) The bone plate assembly according to claim 50, wherein said first recess is capable of substantially encompassing a cylindrical screw head.

60. (Currently amended) The bone plate assembly according to claim ~~56~~ 50, wherein said at least one aperture allows for the screw to translate without being able to rotate about a spherical head.

61. (Original) A bone plate assembly utilizing at least one bone screw for fixation of adjacent bones of a spine comprising:

a base plate including at least one hole extending therethrough;
insert means operatively engaged within said at least one hole for accommodating the bone screw and screw retaining means mounted and movable within said insert means between locked and unlocked positions relative to insert means for preventing the bone screw from backing out from said base plate.

62. (Previously Presented) A locking mechanism for use in an orthopedic device, said mechanism comprising:

screw retaining means mounted on and movable relative to an orthopedic device between locked and unlocked positions about an aperture, said screw retaining means including a recess shaped to substantially encompass a head of the bone screw for preventing the bone screw from backing out from said base plate.

63. (Previously Presented) A bone plate assembly utilizing one bone screw for fixation of adjacent bones of a spine comprising:

a base plate including one aperture extending therethrough; and
screw retaining means mounted on and movable relative to said base plate between locked and unlocked positions about said aperture, said screw retaining means including a recess shaped to substantially encompass a head of the bone screw for preventing the bone screw from backing out from said base plate.

64. (New) A bone plate assembly utilizing at least one bone screw for fixation of first and second vertebrae of a spine comprising:

a base plate including at least one aperture extending therethrough, wherein said at least one aperture is an elongated slot having a

hole extending therethrough, said aperture including a side wall having at least one protrusion; and

a screw retaining mechanism mounted on and translatable relative to said base plate between locked and unlocked positions relative to said aperture, said screw retaining means shaped to at least partially encompass a head of the bone screw for preventing the bone screw from backing out from said base plate when in the locked position and to permit said bone screw to back out when in the unlocked position; said screw retaining mechanism having at least one indentation positioned to engage said at least one protrusion in said side wall of said aperture when in the locked position to hold said screw retaining mechanism in the locked position.

65. (New) The bone plate assembly of claim 64, wherein said at least one protrusion including two protrusions extending towards each other from opposing portions of said side walls of said aperture, and said at least one indentation including two indentations positioned on opposing sides of said screw retaining mechanism.

66. (New) A bone plate assembly utilizing at least one bone screw for fixation of first and second vertebrae of a spine comprising:

a base plate including a plurality of apertures extending therethrough, wherein said apertures are elongated slots having holes extending therethrough; and

a separate screw retaining mechanism for each said aperture in said base plate mounted on and translatable relative to said base plate between locked and unlocked positions in said aperture, said screw retaining means shaped to at least partially encompass a head of the bone screw for preventing the bone screw from backing out from said base plate when in the locked position and to permit said bone screw to back out when in the unlocked position.